PACKET PROCESSING SYSTEM AND METHOD FOR A DATA TRANSFER NODE WITH TIME-LIMITED PACKET BUFFERING IN A CENTRAL QUEUE

Abstract of the Disclosure

A method and system are provided for processing data packets at a data-transfer network node. The method and system include determining a length of time that a packet has been buffered at the node by associating a timer with each data packet received and buffered in the node's central queue. The central queue subsequently reads the associated timer to determine a length of time that a data packet has been buffered prior to the data packet being transmitted by the node. If a packet has been buffered too long, then the queue discards the packet. Otherwise, the queue permits transmission of the packet. The amount of circuitry in the switching node's central queue is reduced by locating the packet timers in timer logic external to the queue.